

## DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES



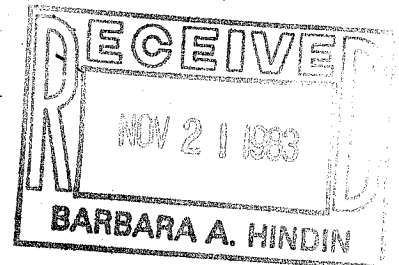
TED SCHWINDEN, GOVERNOR

COGSWELL BUILDING

STATE OF MONTANA

HELENA, MONTANA 59620

November 3, 1983



John Perrin  
Director of Public Works  
Drawer C  
Columbia Falls, MT 59912

Dear John;

Thanks for your call regarding license requirements for sludge injection sites. I will attempt to clarify the regulations below.

Whenever sludge is applied for "beneficial use", no solid waste license is required. That means that if sludge is tested for its nutrient value and heavy metal content (much as a fertilizer is rated) and then applied at a rate which allows an agricultural crop to utilize the nutrients (again like a fertilizer), no licensing is necessary. This is based on several assumptions, namely:

- 1) If the crop utilizes the nutrients, they will not leach into groundwater.
- 2) The crop is removed regularly so nutrients and metals don't build up in the soil.
- 3) The sludge doesn't contain levels of metals or harmful materials which will retard or inhibit crop growth or be dangerous for later crop use.

If, however, sludge is applied at a heavier rate than the crop can use, or if the sludge contains deleterious compounds, then we regard the application site as a disposal facility and solid waste licensing is required. In this case, other requirements may also be necessary, such as monitoring wells, regular soil sampling, etc.

In order to demonstrate that the program is indeed "beneficial use" and no license is necessary, we need the following information:

- 1) Results of two or three tests of sludge samples to determine nutrient and metal level;
- 2) An approximation of annual sludge quantities;
- 3) Details on the application methods, injection equipment to be utilized, seasonal application patterns, storage facilities for winter time, etc;

November 3, 1983

John Perrin DPW  
Columbia Falls  
Page Two

- 4) Application site description, including:
  - a) number of acres available;
  - b) expected crops and cropping pattern;
  - c) depth to ground water
  - c) SCS soil profile (if available)
- 5) Computation of annual or cumulative application rates and limiting factors for annual or total site life.  
This is based upon the nutrients and heavy metals in the sludge.

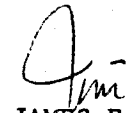
The information above can be used to develop an operation and maintenance plan for the site with specific methods for applying the sludge, dividing the site into marked application areas, recording actual quantities of sludge applied, etc.

I understand that the Water Quality Bureau will require that a comprehensive sludge utilization management plan be developed. All the information required above will be included in the plan, so we can get what we need from that document and then write a letter to you stating that further solid waste licensing is unnecessary, if that is the case.

While the sludge utilization management plan is generally developed by the engineering consultant who is doing the treatment facility wastewater plan, we will be glad to assist where necessary.

I hope this letter clarifies what we'll need from you for solid waste approval. If not, please contact me and I'll try to further clarify the situation.

Sincerely,

  
JAMES E. LEITER  
Solid Waste Management Bureau  
Telephone: (406) 444-2821

JEL:vc

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